

TECHNICAL REVIEW COMMITTEE MEETING

NAVAL SUBMARINE BASE KINGS BAY, GEORGIA

OCTOBER 28, 1993





AGENDA

- Supplemental RFI
 - Purpose
 - Activities Planned
 - Progress To Date
- Interim Measure
 - Purpose
 - Activities Planned
 - Progress To Date
- Progress To Date





PURPOSE

- Previous investigations used screening approach and concentrated on VOCs.
- Confirmation information needs to be collected.
- Information is needed to support the health and environmental assessment and corrective action study.





SUPPLEMENTAL RFI

- Air Sampling
- Surface Water and Sediment Sampling
- Surface Soil Sampling
- Test Trenching
- Borehole Geophysics
- Subsurface Soil Sampling
- Monitoring Well Installation
- Groundwater Sampling
- Topographic and Elevation Survey
- Ecological Survey
- Public Health Survey





AIR SAMPLING

- Baseline Air Quality Characterization
- During Excavation of Test Trenches at Landfill





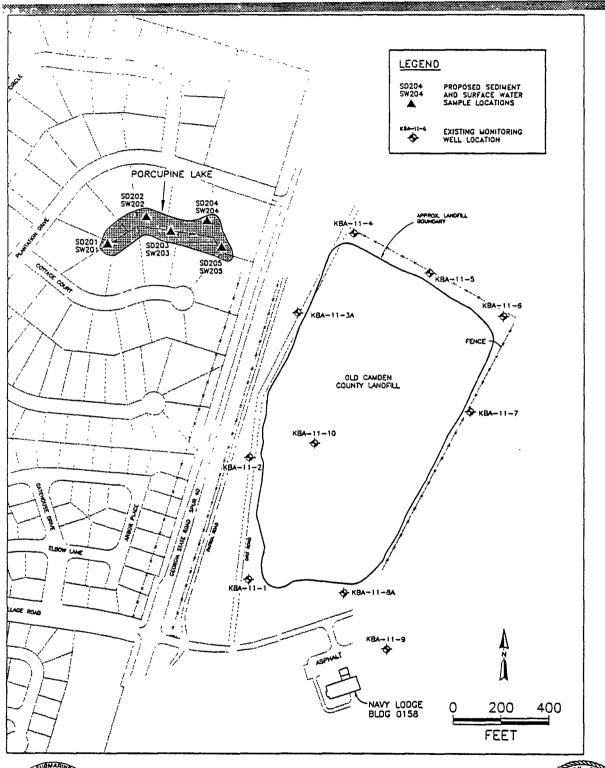
AIR SAMPLING

- Around Perimeter of Site 11
- In Crooked River Plantation Subdivision
- Upwind and Downwind Location
- Real-Time Measurements of Vinyl Chloride と 門
 - During Excavation of Test Trenches in Landfill
- Laboratory Samples for VOCs





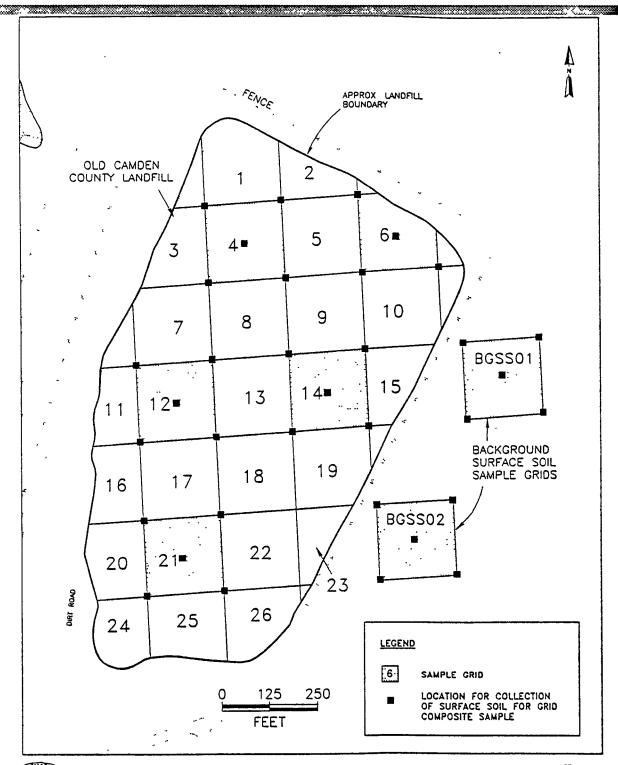
PROPOSED SEDIMENT AND SURFACE WATER SAMPLE LOCATIONS







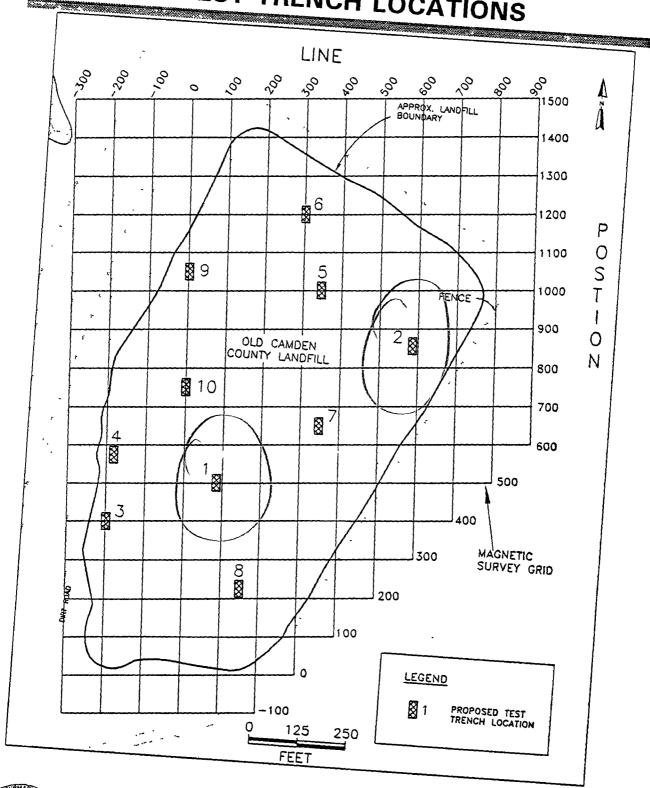
PROPOSED LOCATIONS FOR COMPOSITE SURFACE SOIL SAMPLES







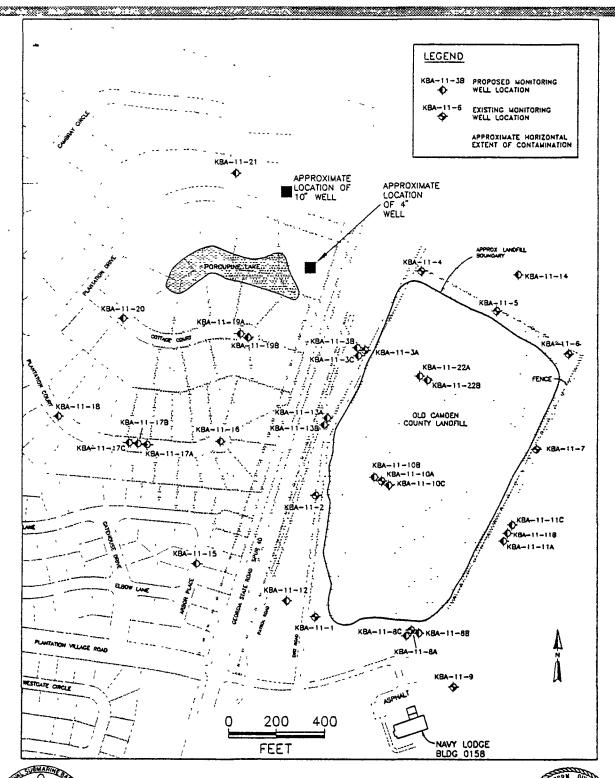
PROPOSED TEST TRENCH LOCATIONS







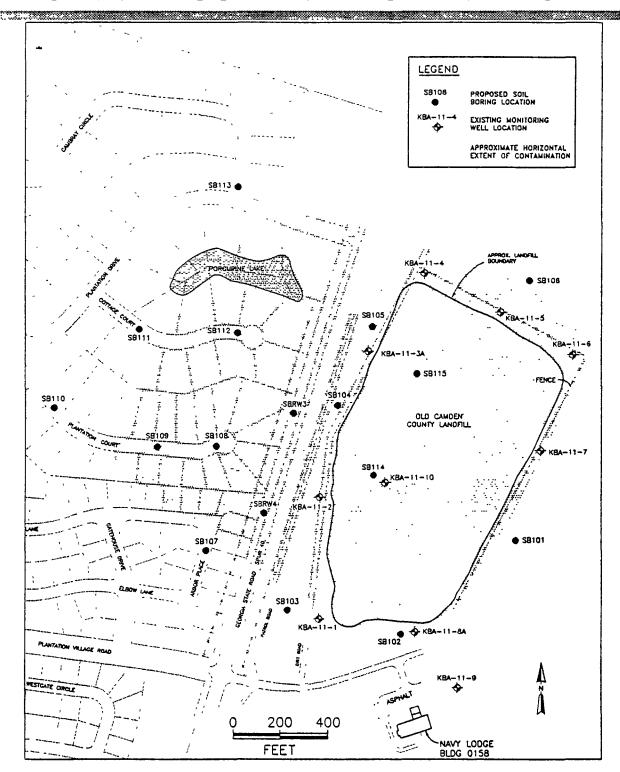
EXISTING AND PROPOSED MONITORING WELL LOCATIONS







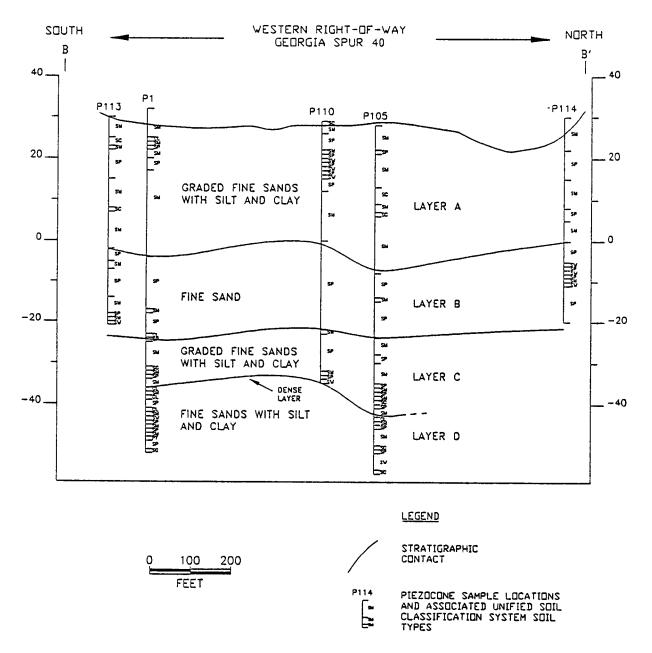
PROPOSED SOIL BORING LOCATIONS







STRATIGRAPHIC CROSS SECTION



NOTES:
ELEVATION IN FEET MEAN LOV WATER
VERTICAL EXAGGERATION: 10x
REFER TO FIGURE 2-11 FOR LOCATION OF CROSS SECTION





ECOLOGICAL SURVEY

- Collect information on the ecological setting of Porcupine Lake, of Site 11, and surrounding area
- Identify possible wildlife species which may inhabit the area
- Basis for selecting potential routes of exposure for ecological receptors





PUBLIC HEALTH SURVEY

- Conduct area reconnaissance, interviews, and records search
- Collect information on activities at the subase, as well as in the community
- Basis for selecting potential routes of exposure for human receptors





HEALTH AND ENVIRONMENTAL ASSESSMENT

- Identify Contaminants of Potential Concern
- Identify the Types and Magnitudes of Potential Exposures
- Gather Information on the Toxicity of the Contaminants of Potential Concern
- Combine the Information on Potential Exposures with Toxicity Information to Evaluate Potential Health Risks





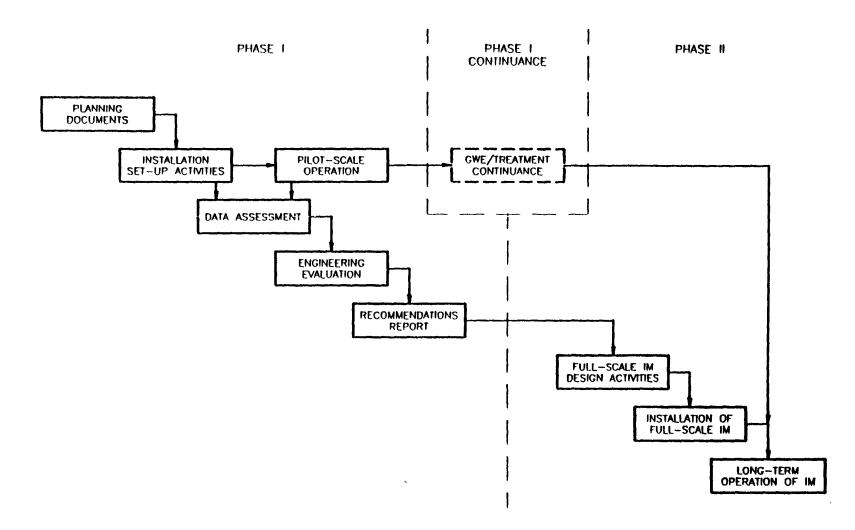
OVERALL OBJECTIVE:

To hydraulically control movement of the VOC plume within the surficial aquifer.

- PHASE I: Pilot scale system installation and operation.
- PHASE I CONTINUANCE: Continued operation of pilot-scale groundwater extraction system to maintain the capture zones that were created during Phase I.
- PHASE II: Full-scale design, implementation and operation of a system to achieve and maintain hydraulic control until a corrective action can be implemented to address the VOC plume.











PHASE I - PILOT SCALE TEST GOALS

- Evaluate the suitability of recovery wells in achieving hydraulic control of the VOC plume.
- Evaluate concentrations of VOCs present in the surficial aquifer and determine if direct discharge to a treatment works is a viable option.
- Determine which treatment technology is most effective and efficient with the least cost, if treatment is necessary for full-scale IM implementation.
- Determine if pretreatment is required and to define pretreatment parameters.





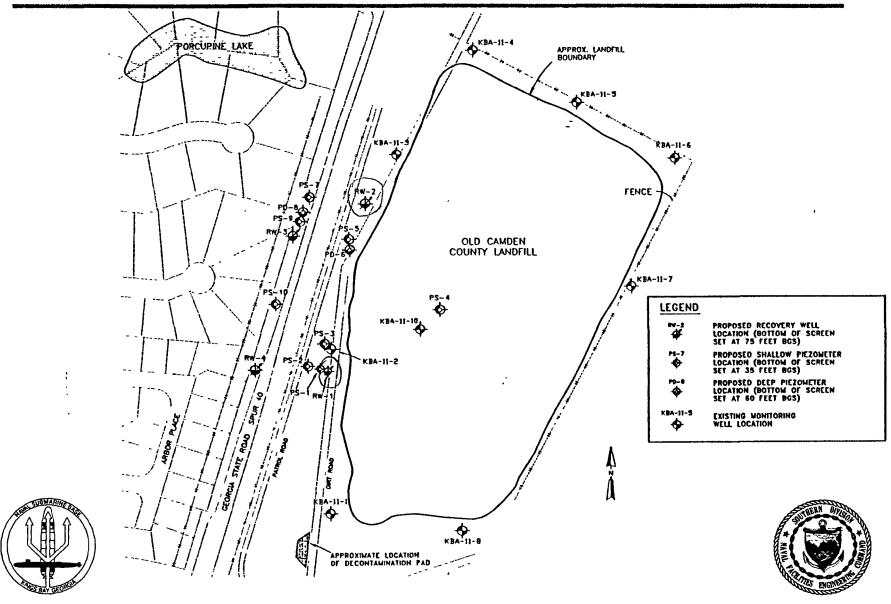
GRANULAR ACTIVATED FORT **INTERIM MEASURE WEST INTERIM MEASURE EAST NSB KINGS BAY GROUNDWATER EXTRACTION** TREATMENT AND AIR-STRIPPER SYSTEM PACKED LOW WET TOWER PROFILE WELL AERATION SUBDIVISION UNIT **POTW** (FINE to MEDIUM) GROUNDWATER APPROXIMATE LIMITS OF AFFECTED GROUNDWATER

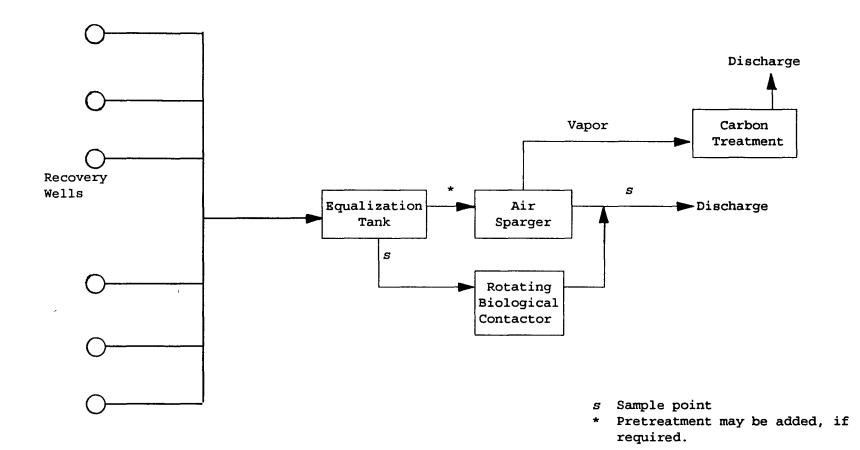


90 - 100 FT, bgs -



RECOVERY WELL LOCATIONS





PILOT-SCALE SYSTEM





PRELIMINARY SCHEDULE

INSTALLATION

Site Preparation

Drilling - RW1

Pumping Test - RW1

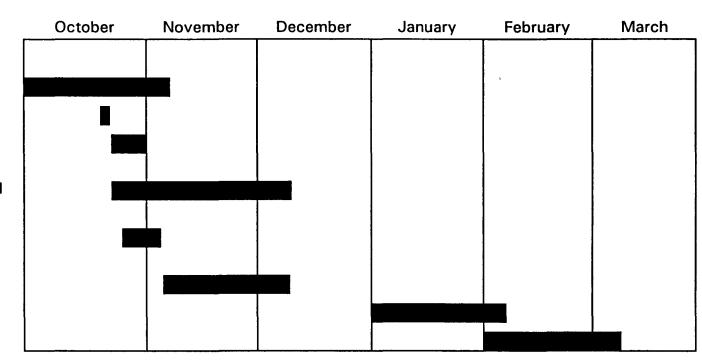
Drilling - RW2 - RW6 and Observation Wells

Bench Scale Testing - Pretreatment

Trenching/Boring

Equipment Installation

System Startup







PRELIMINARY SCHEDULE (CONTINUED)

OPERATION

Stage 1 - RW1 Operation

Recovery Phase/Additional Background Monitoring

Stage 2 - RW1 and RW2 Operation

Stage 3 - RW1 - RW6 Operation

October	November	December	January	February	March



